



Mayzo Makes It Possible

## BLS<sup>®</sup> 1770

### Hindered Amine Light Stabilizer for Plastics

#### Overview

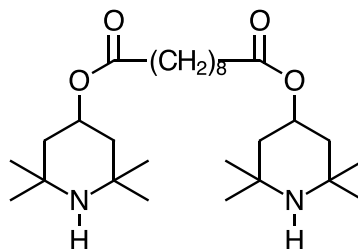
BLS 1770 is a low molecular weight hindered amine light stabilizer that provides excellent light stability for thick sections, but can also be used for articles with a high surface area such as films and tapes. BLS 1770 provides effective ultraviolet light protection for applications demanding particularly high light stability. Significant levels of stabilization are achieved at relatively low concentrations. When compounded, BLS 1770 imparts no negative effects on a substrate's initial color, its low dust, free-flowing form makes it exceptionally convenient to handle.

#### Chemistry

Chemical Name: Decanedioic acid, 1,10-bis(2,2,6,6-tetramethyl-4-piperidinyl) ester

CAS Number: 52829-07-9

Chemical Structure:



#### Typical Properties

Product Form: Solid  
Melting Range: 80 – 86°C  
Molecular Weight: 480.7 g/mol

#### Solubility (percent by weight, 20°C)

Acetone	19	n-Hexane	5
Benzene	46	Methanol	38
Chloroform	45	Methylene chloride	56
Ethanol	50	Water	<0.01
Ethyl acetate	24		

#### Applications

BLS 1770 is a hindered amine light stabilizer offering excellent protection against ultraviolet degradation. BLS 1770 areas of application includes polypropylene, impact modified polypropylene, TPO, EPDM, polystyrene, impact polystyrene, ABS, SAN, ASA, and polyurethanes. In addition, BLS 1770 can be highly effective in polyacetals and polyamides. BLS 1770 is

particularly effective in polypropylene thick sections, but it can also be used for articles with a high specific surface area such as films and tapes. BLS 1770 can be synergistically combined with other stabilizers like BLS 1328 and BLS 1710.

### Advantages

- Free-flowing, low dust
- Excellent long-term light stability in thick cross sections
- Excellent long-term light stability, particularly in articles with high surface areas such as films and tape
- Non-coloring and thermally stable
- Ease of compatibility with other stabilizers
- FDA cleared for use in adhesives

### Guidelines for Use

Recommended use levels range between 0.1% and 0.5%, depending on the substrate, processing conditions, and performance requirements. BLS 1770 can be used in combination with other HALS, UV absorbers, benzoates, antioxidants, and processing stabilizers. The exact formulation to be used is dependent on the substrate, performance requirements, and other factors, and should be determined by the user based on testing to simulate actual conditions of use. Please contact Mayzo for specific recommendations.

### Storage

This product may be stored up to one year in a sealed container. Containers should be kept tightly closed when not in use and stored in a cool, dry place.

### Safety

Please consult the Safety Data Sheet (SDS) prior to handling or using this product.

### FDA Regulations

BLS 1770 has been cleared for use in adhesives under 21 CFR §175.105. Please contact your Mayzo representative for complete details, including restrictions of use.

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